

## **DRAWING AMENDMENTS (Other than Those Requested on Form PTO-948)**

Drawing amendments are provided on separate sheets accompanying this Response.

### **REMARKS**

#### **1. The Amendments and the Support Therefor**

No claims have been canceled, two new claims (21 and 22) have been added, and no claims have been amended to leave claims 1-22 in the application. A PTO-2038 for \$50 (for the two new dependent claims) should accompany this Response. New claims 21 and 22 find support at page 7 line 7 onward, which describe using the recited formula to form one board from edge to edge, and then (if desired) cutting a subsequent board by use of the formula (starting at the coordinates corresponding to the edges of the prior board). Further comments regarding the new claims are set out below.

#### **2. Objections to the Drawings**

The drawings were objected to under 37 CFR §1.83(a) for failure to show every feature of the invention specified in the claims. Proposed drawing corrections are presented in the accompanying replacement drawing sheets (which are each labeled "Replacement Sheet" in the top margin). Support for the illustrated steps is found as follows:

- Choose board material: page 3 lines 1-13;
- Affix board to tool bed: page 3 line 14-page 4 line 6;
- Define mathematical formula: page 4 line 7-page 5 line 25;
- Drive cutting head and/or tool bed relative to board in accordance with formula: page 5 line 26-page 6 line 23;
- Apply surface finish: page 7 line 26-page 8 line 3.

**3. Section 2 of the Office Action: Rejection of Claims 1-20 under 35 USC §112(1)**

Kindly withdraw these rejections. As per MPEP 2161, the application meets all requirements of 35 USC §112(1) (i.e., an enabling written description, including a description of the best mode), and thus the application should not be rejected under 35 USC §112(1). If it is believed that the drawings fail to show all claimed features, an objection under 37 CFR §1.83(a) is proper (and here the Examiner has done so). However, we submit that all requirements of §112(1) are met.

**4. Sections 3-4 of the Office Action: Rejection of Claims 1-20 under 35 USC §103(a) in view of U.S. Patent 5,119,309 to Cavendish et al.**

Kindly withdraw these rejections, since an ordinary artisan who knew of *Cavendish*, but who had no knowledge of the Applicant's claimed method, would not in fact discern any benefit to modifying *Cavendish* to perform the claimed method. *Cavendish* is directed toward the formation of automotive interior panels wherein certain features (such as door handles, pockets, etc.) are defined at certain locations on the panel, and the designer must then "fit together" intermediate smooth surfaces so that the panel will smoothly transition from one designed feature to the next (see, e.g., column 3 lines 16-44 of *Cavendish*). Once the *Cavendish* method is supplied with the coordinates of the predefined features, it generates a formula defining a surface which fits the predefined features together automatically (see, e.g., column 4 lines 25-41), i.e., it automatically defines the smooth surfaces extending between the predefined features. One of ordinary skill who did not know of the present invention, and who knew of *Cavendish*, would not see any reason to modify *Cavendish* to attain the presently-claimed method because:

- ***With regard to claims 1, 11, and 17***, one who sought to manufacture a wall panel would not look to use the *Cavendish* method because it is *not* in fact faster, accurate, and cheaper for use, as alleged by the Examiner. As discussed at page 1 of our application, decorative wall panels are conventionally manufactured by processes such as molding and stamping, which are exceedingly fast and inexpensive: one simply fills a mold with panel material and lets it set, or stamps out the wall panel in a matter of seconds. CNC machining – which requires that the cutting head make multiple passes over the panel to form it – is *not* in fact faster than

stamping or molding (as the Examiner alleges); rather, it is far slower. Even *Cavendish* suggests that stamping/molding are superior manufacturing methods, since *Cavendish* notes that many automotive panels are stamped (column 1 lines 28-29), and further notes that the *Cavendish* method is well suited for the creation of surfaces of stamping dies (see, e.g., column 2 lines 16-18, column 3 lines 45-51, etc.). In other words, even *Cavendish* does *not* machine each individual panel (as claimed in the present claims), and rather the *Cavendish* process is used to *first design* a die which is *then* used to stamp out the automotive panels. (In this respect, it is important to note that *Cavendish* relates to a *design* method, not a *manufacturing* method as claimed in the present claims.) So, given that *Cavendish* would take an *exceedingly* long time to manufacture panels by CNC machining – the CNC tool would need to make repeated passes over each individual panel being produced – why in fact would one of ordinary skill use *Cavendish* in combination with CNC machining to manufacture decorative wall panels? What benefit does this arrangement provide in comparison with simply using the *Cavendish* method to design a single mold or stamping die, which can then be used to cheaply and rapidly produce a decorative wall panel?

- ***With regard to claims 1, 15, and 19***, which further explicitly recite that the panels are affixed to a wall, further consider why one of ordinary skill would use *Cavendish* to design *wall panels* (as opposed to *automotive panels*). The benefit of the use of *Cavendish* is that it provides a means to join a series of predefined automotive panel features (pockets, handles, etc.) by smooth/continuous surfaces – in other words, if one has a number of such features on an automotive door or the like, *Cavendish* might be a useful method. *But decorative wall panels, in contrast to automotive panels, do not have such predefined features*. Again: where is there any real benefit to using *Cavendish* to design decorative wall panels?
- ***With regard to claims 6-8, 13, 14, and 17-20***, all of which relate to the manufacture of second/additional wall panels having surfaces which continuously join the first/prior wall panel, *Cavendish* describes nothing whatsoever that teaches or suggests this feature (particularly since *Cavendish* seeks to define a panel having a single smooth, continuous surface joining a series of predefined features, *not* a series of adjacent panels which each

contain such features). If it is nonetheless believed that *Cavendish* or another reference of record discloses or suggests the Applicant's claimed arrangement, kindly identify with particularity the location and content of the alleged disclosure or suggestion so that the Applicant may better respond.<sup>1</sup>

- ***All other claims*** are submitted to be allowable for at least the same reasons as claims 1, 11, and 17.

## **5. New Claims 21 and 22**

New claim 21, which ultimately depends from claim 1, and new claim 22, dependent from claim 11, are submitted to be allowable for at least the same reasons as their parent claims. Additionally, note that claims 21 and 22 note that the mathematical formula which defines the panel surface is defined across at least the *entireties* of the X width and Y height dimensions of the board. This is in contrast to *Cavendish*, wherein the *Cavendish* methodology only defines a *joining surface* which continuously joins predefined features on the automotive panel – in other words, the surface defined by the *Cavendish* formula does not extend across the *entireties* of the *Cavendish* panels, but rather extends only between the predefined features. There is certainly no suggestion to modify *Cavendish* to meet the limitations of claims 21 and 22, since *Cavendish* would then effectively “write over” and erase the predefined features. See MPEP 2143.01 (subsection entitled “The Proposed Modification Cannot Render The Prior Art Unsatisfactory For Its Intended Purpose”). Thus, if the prior art is objectively reviewed without prior knowledge of the invention (i.e., without hindsight), it is seen that the teachings of the art do not lead one to the invention recited in claims 21 and 22.

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<sup>1</sup> “[W]hen the PTO asserts that there is an explicit or implicit teaching or suggestion in the prior art, it must indicate where such a teaching or suggestion appears in the reference,” *In re Rijckaert*, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993); “When relying on numerous references or a modification of prior art, it is incumbent upon the examiner to identify some suggestion to combine references or make the modification,” *In re Mayne*, 41 USPQ2d 1451, 1454 (Fed. Cir. 1997). See also 37 CFR §1.104(c)(2).

**6. In Closing**

If any questions regarding the application arise, please contact the undersigned attorney. Telephone calls related to this application are welcomed and encouraged. The Commissioner is authorized to charge any fees or credit any overpayments relating to this application to deposit account number 18-2055.

For the Applicant,



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**ATTACHMENTS:**

- New Drawing Page (FIG. 2)
- PTO-2038 (\$50)